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10/816,842

04/05/2004

Andrew C. Welker

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06/29/2006

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EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/816,842

Applicant(s)

WELKER ET AL.

Examiner

Jeremy Luks

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-34 is/are pending in the application.
- 4a) Of the above claim(s) 5-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 19-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/15/04, 8/17/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informalities: There is no disclosure in the Specification or Drawings for "a secondary passive diaphragm suspension mounted to the passive diaphragm". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sahyoun (2003/0015369) in view of Hill (4,949,386).

With respect to Claims 1, 22-28, Sayhoun teaches an enclosure (Figure 35, #316); a passive radiator aperture (Figure 19, #210) formed in the enclosure; a passive diaphragm (180) mounted within the passive radiator aperture (210) by a passive diaphragm suspension (184) extending between the passive diaphragm (178) and the enclosure, wherein the passive diaphragm is mounted essentially centrally within the passive radiator aperture (210) and wherein the suspension (184) allows the passive diaphragm to move linearly in a direction substantially normal to the surface of the passive diaphragm (178); an active driver aperture formed in the enclosure (Figure 35,

Art Unit: 2837

#316); an active driver (312) mounted within the active driver aperture; the active driver aperture is formed in the cover and the passive radiator aperture is formed in the base (See Figure 35). Sayhoun fails to teach a diaphragm suspension providing a weather-resistant seal between a diaphragm and the enclosure; an active driver seal that is weatherproof and airtight or; an active diaphragm made from a weatherproof or weather-resistant material; wherein the enclosure includes a base and a cover mounted to the base with a water-tight or moisture-tight seal. Hill recognizes that it is well known in the art to provide a diaphragm suspension providing a weather-resistant seal between a diaphragm and an enclosure; wherein an active driver seal is weatherproof and airtight; and has an active diaphragm made from a weatherproof or weather-resistant material (Col. 1, Lines 9-15, 30-36 and 41-45). Hill teaches an enclosure (Figure 1, #12) including a base (13) and a cover (18) is mounted to the base (13) with a watertight or moisture-tight seal (Figure 2, #34) (Col. 3, Lines 5-12). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Sayhoun with the apparatus of Hill in order to make the speaker enclosure waterproof for outdoor use.

With respect to Claim 2, Sayhoun teaches a secondary passive diaphragm suspension (Figure 7, #118) mounted to the passive diaphragm (106). The Examiner considers inner surround (114) or suspension to be a main suspension, and outer surround (118) to be a secondary suspension (Page 3, [0050]).

With respect to 3, Sayhoun teaches an active driver (Figure 35, #312) has been selected for installation in the active driver aperture, and wherein the passive diaphragm

(314) is tuned to a frequency below the low frequency cutoff frequency of the active driver (312) (Page 4, [0059]).

3. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sahyoun (2003/0015369) in view of Hill (4,949,386), as applied to Claim 1 above, and further in view of Takewa (2002/0061117). Sayhoun and Hill are relied upon for the reasons and disclosures set forth above. Sayhoun further teaches a passive diaphragm (Figure 7, #106). Sayhoun and Hill fail to teach wherein a diaphragm and a suspension (74) are co-molded (Page 5, [0077]); an enclosure and suspension are co-molded; and wherein the suspension is co-molded to both the diaphragm and the enclosure.

Takewa teaches wherein a diaphragm (Figure 10, #70) and a suspension (74) are co-molded (Page 5, [0077]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Sayhoun as modified, with the apparatus of Takewa in order to lower labor and production costs. Taweka fails to teach an enclosure and suspension are co-molded; and wherein the suspension is co-molded to both the diaphragm and the enclosure. However, It would have been an obvious matter of design choice to make an enclosure and suspension co-molded; and a suspension co-molded to both a diaphragm and an enclosure, since it has been held that that the use of a one-piece construction involves only routine skill in the art. *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

4. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sahyoun (2003/0015369) in view of Hill (4,949,386), as applied to Claim 1 above, and further in view of Yee (6,378,825).

With respect to Claim 29, Sayhoun and Hill are relied upon for the reasons and disclosures set forth above. Sayhoun and Hill fail to teach a mounting bracket configured to be removably mounted to the enclosure, wherein the mounting bracket includes at least one support arm having an unlocked position and a locked position, and wherein the enclosure includes a mounting channel for receiving the mounting bracket while the support arm is in the unlocked position. Yee teaches a mounting bracket (Figure 5) configured to be removably mounted to an enclosure (39), wherein the mounting bracket (Figure 5) includes at least one support arm (30) having an unlocked position (when arm 30 is in opening #42, Figure 5) and a locked position (when arm 30 is in opening #44, and post #35 is engaged with post hole #37, Figure 3, 5), and wherein the enclosure (39) includes a mounting channel (42) for receiving the mounting bracket (Figure 5) while the support arm (30) is in the unlocked position. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Sayhoun as modified, with the apparatus of Yee in order to mount the speaker in an easily removable manor for repositioning or maintenance.

With respect to Claims 30-32, Yee teaches wherein the mounting bracket includes a mounting plate (Figure 4, #38) and a locking plate (10), wherein the arms (Figure 5, #30) are formed on the locking plate (10) and wherein the arms (30) are movable between the locked (when arm 30 is in opening #44, and post #35 is engaged with post hole #37, Figure 3, 5) and unlocked positions (when arm 30 is in opening #42, Figure 5) by moving the locking plate (10) relative to the mounting plate (38), and wherein the mounting bracket further includes a locking screw (35) for moving the arms (30) between the locked and unlocked positions. It would have been obvious to one of

Art Unit: 2837

ordinary skill in the art at the time of the invention to combine the apparatus of Sayhoun as modified, with the apparatus of Yee in order to mount the speaker in an easily removable manor for repositioning or maintenance.

5. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sahyoun (2003/0015369) in view of Hill (4,949,386) as applied to Claim 1 above, and further in view of Sickels (6,467,745). Sayhoun and Hill are relied upon for the reasons and disclosures set forth above. Sayhoun and Hill fail to teach a mounting bracket, wherein the mounting bracket includes one or more bracket positioning elements and the enclosure includes a plurality of enclosure positioning elements configured to receive the bracket positioning elements to hold the enclosure in a fixed position relative to the bracket; wherein the bracket positioning elements are shoulders formed on the mounting bracket and wherein the enclosure positioning elements are a plurality of detents formed in the enclosure to receive one or more of the shoulders. Sickels teaches a mounting bracket (Figure 2, #21), wherein the mounting bracket (21) includes one or more bracket positioning elements (Figure 2, #74) and an enclosure (Figure 1, #14, 11) includes a plurality of enclosure positioning elements (40a-d) configured to receive the bracket positioning elements (Figure 2, #74) to hold the enclosure (Figure 1, #14, 11) in a fixed position relative to the bracket (21); wherein the bracket positioning elements (Figure 2, #74) are shoulders formed on the mounting bracket (21) and wherein the enclosure positioning elements (40a-d) are a plurality of detents formed in the enclosure (Figure 1, #14, 11) to receive one or more of the shoulders (Figure 2, #74). It would have been obvious to one of ordinary skill in the art

at the time of the invention to combine the apparatus of Sayhoun as modified, with the apparatus of Sickels to adjustably mount the speaker enclosure at a desired angle.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinent arts of record relating to outdoor loudspeakers with passive radiators are disclosed in the PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/816,842
Art Unit: 2837

Page 8

Jeremy Luks
Patent Examiner
Art Unit 2837



LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER